

Amendments to the Claims

Please amend claims 1-3 and 6-10, without prejudice or disclaimer, as indicated in the following Listing of Claims.

Listing of Claims

Claim 1 (Currently amended): A contact structure for a sliding switch, comprising:
first and second conductive stationary contacts of a first potential disposed on a base;
a third conductive stationary contact of a second potential different from said first potential disposed on said base, said third stationary contact including first and second conductive regions; and

a conductive movable contact for electrically contacting at least one of said stationary contacts, said movable contact being movable along a path between a non-contact position and a make contact position with respect to said at least one of said stationary contacts,

said at least one of said stationary contacts ~~and said movable contact~~ having a protruding portion configured to provide an electrical interface for discharge of arcing as said movable contact ~~breaks from said stationary contact~~ moves between said make contact position and said non-contact position.

Claim 2 (Currently amended): A contact structure for a sliding switch as recited in claim 1, wherein said at least one of said stationary contacts is a flat pad.

Claim 3 (Currently amended): A contact structure for a sliding switch as recited in claim 21, wherein said movable contact is generally substantially shaped as a cylinder.

Claim 4 (Previously presented): A contact structure for a sliding switch as recited in claim 3, wherein a central axis of said movable contact is perpendicular to said path.

Claim 5 (cancelled)

Claim 6 (Currently amended): A contact structure for a sliding switch, comprising:
 first and second conductive stationary contacts of a first potential disposed on a base;
 a third conductive stationary contact of a second potential different from said first potential disposed on said base, said third stationary contact including first and second conductive regions;
 a conductive movable contact disposed to move relative to said first and second stationary contacts along a path extending from a non-contact position, in which said movable contact is electrically isolated from at least one of said stationary contacts to a make-contact position, in which said movable contact maintains a primary electrical interface with said at least one of said stationary contacts;

a contacting zone defined on said at least one of said stationary contacts that electrically contacts said movable contact when said movable contact is in said make-contact position; and

an arcing zone defined on said at least one of said stationary contacts that terminates electrical contact with said movable contact when said movable contact moves from said make-contact position to said non-contact position or initiates electrical contact with said movable contact when said movable contact moves from said non-contact position to said make-contact position, said arcing zone providing an electrical interface where arcing occurs between said at least one of said stationary contacts and said movable contact,

wherein said at least one of said stationary contacts and said movable contact are mutually shaped and oriented such that when said contacting zone is projected along said path onto said arcing zone, at least a portion of a projection of said contacting zone lies outside said arcing zone, thereby providing a region within said contacting zone which is generally outside of an arcing erosion debris path created by said movable contact as said movable contact moves along said path.

Claim 7 (Currently amended): A method of preventing degradation in performance of a sliding switch comprising the steps of:

providing first and second conductive stationary contacts of a first potential disposed on a base;

providing a third conductive stationary contact of a second potential different from said first potential disposed on said base, said third stationary contact including first and second conductive regions;

providing a conductive movable contact for electrically contacting at least one of said stationary contacts, said movable contact being movable along a path between a non-contact position and a make contact position with respect to said at least one of said stationary contacts;

and causing arcing to occur outside said path upon engagement or disengagement between said conductive moveable contact and said at least one of said stationary contacts.

Claim 8 (Currently amended): A method of preventing degradation in performance of a sliding switch comprising the steps of:

providing first and second conductive stationary contacts of a first potential disposed on a base;

providing a third conductive stationary contact of a second potential different from said first potential disposed on said base, said third stationary contact including first and second conductive regions;

providing a conductive movable contact for electrically contacting at least one of said stationary contacts, said movable contact being movable along a path between a make contact position and a non-contact position with respect to said at least one of said stationary contacts; and

providing at least one protrusion on at least one of said contacts to provide an electrical interface for discharge of arcing as said movable contact breaks from said at least one of said stationary contacts, wherein said at least one protrusion is configured to direct said discharge of arcing away from at least a portion of said path.

Claim 9 (Currently amended): A contact structure for a sliding switch, comprising:

first and second conductive stationary contacts of a first potential disposed on a base;

a third conductive stationary contact of a second potential different from said first potential disposed on said base, said third stationary contact including first and second conductive regions; and

a conductive movable contact for electrically connecting said first and second stationary contacts, said movable contact being movable from a make contact position, in which said movable contact electrically connects said stationary contacts, to a non-contact position, in which said stationary contacts are electrically isolated from one another, said movable contact being configured to simultaneously terminate electrical contact with both of said first and second stationary contacts as said movable contact moves from said make contact position to said non-contact position.

Claim 10 (Currently amended): A contact structure for a sliding switch, comprising:

first and a-second conductive stationary contacts of a first polarity disposed on a base;

a conductive third stationary contact of a second polarity opposite said first polarity disposed on said base, said third stationary contact including first and second conductive portions;

an insulator disposed so as to electrically isolate said first, second, and third stationary contacts and said first and second conductive portions of said third stationary contact; and

a conductive movable contact configured to move along a path from a first contact position, in which said movable contact electrically connects said first stationary contact and said

first portion of said third stationary contact, to a second contact position, in which said movable contact electrically connects said second stationary contact and said second portion of said third stationary contact,

wherein said path includes a non-contact position located between said first and second contact positions, in which non-contact position said stationary contacts are electrically isolated from one another; and

wherein said movable contact is configured to terminate electrical contact with said first portion of said third stationary contact before said movable contact terminates electrical contact with said first stationary contact as said movable contact moves from said first contact position toward said non-contact position, thereby directing discharge of arcing to said third stationary contact and preventing degradation of insulation performance between said first and second stationary contacts.